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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	
	)	
Rulemaking to Amend Part 1 and	)	CC Docket No. 92-297
Part 21 of the Commission's Rules	)	
to Redesignate the 27.5 - 29.5 GHz	)	RM-7872; RM-7722
Frequency Band and to Establish	)	
Rules and Policies for Local	)	
Multipoint Distribution Service	)	

REPLY COMMENTS OF THE UNITED STATES TELEPHONE ASSOCIATION

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SUMMARY

Local exchange carriers (LECs) should not be precluded from offering LMDS. There are no anticompetitive issues that would merit their being barred from its provision. With the large number of existing service providers and potential new entrants in the video services market, there is arguably no "bottleneck" to speak of and the LECs would have no market power to foreclose or impede competition.

While USTA does not oppose to allocating the entire 2000 MHz within the 28 GHz band to LMDS; nonetheless, there may be other less-expansive options that the Commission may consider. As a precautionary measure, the Commission should study the technical parameters of the Suite 12 technology at greater length before making a decision to redesignate the entire 2 GHz for LMDS use.

The satellite industry asserted that the entire 2500 MHz bandwidth presently

the number of LMDS entrants and impede effective competition in the wireless market.

The Commission should continue to use MSAs and RSAs as serving areas for LMDS. The licensing term should be ten years, with 75% to 50% built-out during the initial 3 year period.

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The United States Telephone Association (USTA) respectfully submits these replies to the comments filed in the above-captioned proceeding.

In the NPRM, the Commission proposed to reallocate the 27.5 - 29.5 GHz frequency band to establish a new, radio-based distribution service called Local Multipoint Distribution Service (LMDS). The Commission anticipated that LMDS systems would be utilized initially for distribution of video programming and ultimately for distribution of two-way voice, data, and video communications. The Commission indicated that such use could compete with, complement or supplant cable television and local exchange services.[1]

[1] NPRM at ¶¶ 1-4.

I. LOCAL EXCHANGE CARRIERS SHOULD NOT BE PRECLUDED FROM OFFERING LMDS

In the NPRM, the Commission asked if there are any anti-competitive reasons why local exchange carriers (LECs) should be excluded from the provision of LMDS.[2] Many parties supported USTA's assertion that an open entry policy will ensure that all entities with the requisite expertise and experience are offered the opportunity to offer LMDS. Local exchange carriers possess substantial expertise and experience in telecommunications services. They should be allowed to use LMDS technology to complement their video dial tone services and to provide robust competition to the franchised cable industry.[3]

LEC participation in LMDS would not raise any anticompetitive issues that would merit their being barred from its provision. With the large number of existing service providers and potential new entrants in the video services market, there is arguably no "bottleneck" to speak of and the LECs would have no market power to foreclose or impede competition. Hence, the Commission's tentative conclusion to allow all participants to become LMDS licensees should be sustained.

II. REASSIGNMENT OF THE 28 GHz BAND TO LMDS

The 28 GHz band is currently allocated to point-to-point microwave service and

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[2] NPRM at n.12.

[3] See e.g. BellSouth Corporation (BellSouth) at 4; Rochester Telephone Corp. (Rochester) at 8; Rock Hill Telephone Company (Rock Hill) at 3; Sprint Corporation (Sprint) at 10-11; U S WEST, Inc. (U S WEST) at 9.

fixed satellite service on a co-primary basis. The Commission tentatively concluded that the spectrum has been under-utilized and proposed to redesignate the use of 2000 Megahertz (MHz) in the 28 GHz band to LMDS. Initially, the 28 GHz band will be licensed in two blocks of 1000 MHz each to two different service providers. The co-primary allocation for satellite use would remain, and a new Subpart L would be added to Part 21 of the rules to govern LMDS systems operations.

A few observations here are appropriate. The filed comments addressing spectrum reassignment generally fall along these lines: most local exchange carriers, as well as radio technology proponents and their manufacturers, favored reassigning the entire 2 GHz to LMDS; the satellite industry insisted on retention of a separate assignment for domestic fixed satellite; and the wireless cable coalitions and educational institutions asked for a spectrum set-aside within the 28 GHz band. While some aspects of the proposals seem justifiable, others are clearly self-serving and lack merit. Below, USTA offers its replies to the above proposals.

(A) 2 GHz for LMDS

A majority of the local exchange carriers supported redesignating two blocks of 1000 MHz each to two different LMDS providers.[4] They agreed with the Commission's tentative decision that as a new source of competition for franchised cable companies,

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[4] The following local exchange carriers indicated that they are not opposed to the Commission's proposal to reassign 2 GHz to LMDS. See comments of GTE at 4; Ameritech at 1-2; Bell Atlantic at 1-2; Nynex Mobile at 2; Rochester at 1-2; Sprint at 2; U S WEST at 3. But See Digital Microwave at 2. (The Commission should preserve

wireless cable companies, and other video service providers, LMDS will further the goal of "using the disciplines of the marketplace to regulate the price, type, quality and quantity of video services available to the public."[5]

While USTA does not oppose to allocating the entire 2000 MHz within the 28 GHz band to LMDS; nonetheless, there may be other less-expansive options that the Commission may consider. USTA's concern with this "wholesale" approach is twofold: (1) the Suite 12 technology is new and still unproven; and (2) exclusive use of such a large amount of scarce spectrum resource by two licenses per service area is too generous and certainly unprecedented.

One commenter expressed misgivings about the Suite 12 "millimeter wave technology." The Wireless Cable Association International, Inc. (WCA) maintains that the Commission lacks sufficient information regarding 28 GHz technology to craft a regulatory structure for LMDS; and, despite the needs of many wireless cable operators for additional channel capacity, WCA counselled against rushing into a full-scale allocation at this time. It asked the Commission to study both the capabilities and the limitations of the 28 GHz technology more fully before promulgating a regulatory scheme that will last for years to come.[6]

Spectrum assignments to other services pale when compared to the proposed

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[5] NPRM at ¶ 16.

[6] See WCA at 6-7 (The hype surrounding this technology, coupled with the lack of real-world data, should give the FCC pause.); See also NASA at 15-17. (There are significant issues associated with the design of Suite 12's LMDS system that cast doubt on the technical and economic viability of the system.)

reassignment of the 2 GHz to LMDS. Only 220 MHz is now being considered for allocation to personal communications services. The entire VHF and UHF broadcast TV bands only occupy about 400 MHz to deliver 67 video channels. More significant, the proposed reassignment does not take into account the future spectrum needs of point-to-point microwave radio services when the lower bands are filled.

As stated above, USTA does not oppose the Commission's reassignment plan. As a precautionary measure, however, the Commission should study the technical parameters of the Suite 12 technology at greater length before making a decision to redesignate the entire 2 GHz for LMDS use.

(B) Allocation for Fixed Satellite Services

The satellite industry, led by the National Aeronautics and Space Administration (NASA), asserted that the entire 2500 MHz bandwidth presently allocated for fixed satellite service (FSS) uplinks at Ka-band between 27.5 - 30.0 GHz will be required to satisfy the anticipated commercial demand for broadband satellite services. According to NASA, demand for satellite services is growing, with many new satellite applications at the threshold of commercial viability that can be optimally provided at Ka-band. NASA attached to its comments the Sarnoff Report which alleges that a fully-developed LMDS system would cause unacceptable interference to a fixed satellite, and vice versa.

Rather than reassigning the 2 GHz to LMDS as the Commission has proposed, NASA requested that a full 2500 MHz bandwidth be allocated for FSS uplinks at the Ka-band (27.5 - 30.0 GHz) to meet anticipated commercial demands for satellite-provided services. NASA's specific proposals are as follows: assign 500 MHz for super computer

access and network restoral systems; rural electric power monitoring; personal communications network and services; satellite cellular telephone networks; high definition television; and intelligent highway vehicle systems. Another 500 MHz should be assigned for Low Earth Orbit (LEO) satellite system feeder links, possibly separate and apart from the spectrum allocated to Geosynchronous Earth Orbit (GEO) satellites. Lastly, assign 1500 MHz for fixed VSAT, including wideband services for B-ISDN.[7]

While USTA applauds NASA's efforts in continuing research and experiments for future satellite services and technologies, the large amount of spectrum that it projects for FSS use at this time is unwarranted. NASA's arguments for the 2500 MHz allocation are, on balance, based on speculative assumptions. For instance, many of the services that it projected will materialize in the future use what NASA itself calls "high risk" technology.

Moreover, since satellite technology requires a large amount of bandwidth, it is unlikely that new services such as personal communications services, high definition television, cellular and B-ISDN can extensively rely on satellite technology. It is also unlikely that FSS itself can compete efficiently in terms of costs and performance with other more efficient terrestrial technologies.

NASA argued strenuously about possible interference between LMDS and FSS, alleging that the number of LMDS transmitters might need to be limited to maintain interference at an acceptable level.[9] The Sarnoff Report then suggested that LMDS system could take steps to ensure compatibility with FFS by installing passive repeaters; but even so, there would still exist a region around each LMDS subscriber within which a FFS system could not be located due to interference entering the backlobe, creating additional propagation paths.[10]

NASA's arguments for possible interference can best be viewed as unsubstantiated. The reason is that since LMDS is still an under-developed technology that has not been optimized, there is still room for its operating prototype system to incorporate additional technologies to avoid interference with ACTS uplink transmission, if necessary. The range of spectrum (27.5 - 30 GHz) appears to be more than sufficient for both LMDS and ACTS to co-exist. Even if that is not feasible, a logical 1.5 GHz split (27 GHz - 30 GHz) would meet all start-up requirements for these two services. Hence,

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[9] NASA at 21.

[10] id. at 24-25. By contrast, one commenter states that VSAT may still be too expensive for some to use. See Public TV and PBS comments at 15.

there is no basis to conclude that these two services could not share the spectrum on a co-primary basis.

USTA acknowledges that more technical studies and experimentation on FSS and LMDS frequency coordination need to be performed, and is pleased that NASA is continuing to do so. However, it disagrees with NASA that the Commission's redesignation proposal should be deferred for five years pending this study. The prudent course for the Commission is to assign the lower half of the 27 - 30 GHz band to LMDS, reserving the upper half portion of the same GHz band for future satellite and point-to-point microwave services on a co-primary basis.

(C) **Requests for Set-Asides**

[redacted]

services that could still be carried on LMDS systems.[13] Setting aside half of the spectrum for educational purposes would reduce the number of LMDS entrants and impede effective competition in the wireless market. As a policy matter, the Commission should adopt an open entry policy by refusing to reserve specific spectrum for certain designated parties.

III. SERVICE AREAS

USTA and other commenters argued for using the Metropolitan Statistical Areas (MSAs) and Rural Statistical Areas (RSAs) as serving areas for LMDS.[14]

MSAs and RSAs used for licensing cellular and other radio services are the best models for geographic area licensing. Since it is expected that LMDS will, at least initially, be used principally for distribution of video programming, the rationale supporting the use of MSAs/RSAs for licensing the interactive television service is equally applicable to LMDS. There are similar communities of interest which parallel the essentially local nature of today's video programming market that is currently dominated by local cable television systems.[15] MSAs/RSAs approximate actual patterns of cellular industry ownership and operation more closely than basic trading areas (BTAs) and provide an important incentive for the development of 28 GHz technologies in rural

scale to reflect the needs of the communities. The use of smaller serving areas will permit a greater number of service providers which will, in turn, increase the capital available to develop LMDS. Larger licensing areas such as BTAs are more likely to cause delays in introducing LMDS to the public. MSAs and RSAs have been utilized successfully for mobile services for a number of years. There is no need to adopt yet another service area definition for LMDS.

IV. LICENSING TERMS

The Commission proposes that the LMDS licensee be capable of serving 90% of the population in the service territory within five years of receiving the license.[16] USTA supports the recommendation for a ten year licensing term[17] because five years is not long enough to develop the underlying infrastructure to meet the demands for a new service and to recover the licensee's capital investment. Also, a longer license term will enable smaller licensees to obtain the necessary financing to meet building requirements. Hence, a ten-year license period with a renewal option is more appropriate.

The Commission also proposes that LMDS licensees be required to provide service coverage to 90% of the population residing in the service area within 3 years. Adoption of this requirement would, in effect, mean that the Suite 12 technology would have to be used since it is currently the only provider of LMDS hardware and software. This requirement would undermine technology innovation.[18]

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[16] NPRM at ¶ 40.

[17] See Ameritech at 7; Bell Atlantic at 5-6; BellSouth at 14; GTE at 20-21; NYNEX Mobile at 7-8; Sprint at 14-15.

[18] See Ameritech at 5-6.

In addition, the Commission should adopt a build-out rule that commensurates with the size and population density characteristics of the areas served. If the MSA/RSA model is adopted, a 75% to 50% coverage during the initial 3 year period appears to be reasonable.

V. CONCLUSION

Local multipoint distribution service offers market opportunities for video programming and other interactive video services. It also offers competitive challenges to entrenched cable entities, wireless cable providers and other video services providers. No entry barrier should exist for legitimate participants of LMDS. Local exchange carriers should be permitted to participate, so should other qualified service providers.

The Commission should exercise the utmost caution in redesignating the two 1000 MHz blocks in the 28 GHz band among competing interests, bearing in mind the technology available, and the benefits derived from timely introduction of LMDS to the marketplace. Public interest will be disserved if the instant proceeding is deferred for another five years.

Respectfully submitted,

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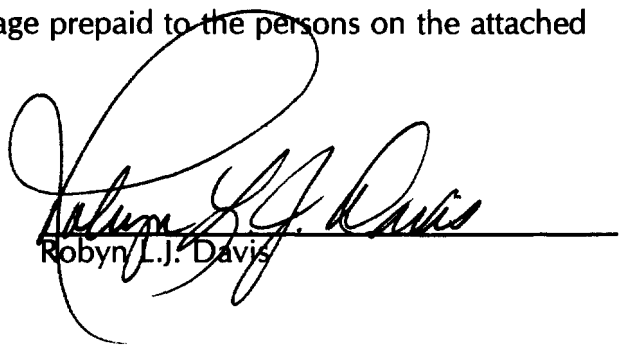
April 15, 1993

CERTIFICATE OF SERVICE

I, Robyn L.J. Davis, do certify that on April 16, 1993 copies of the foregoing Reply Comments of the United States Telephone Association were either hand-delivered, or deposited in the U.S. Mail, first-class, postage prepaid to the persons on the attached service list.



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